1. A liquid crystal display device, comprising:

two substrates facing and spaced from each other, at least one of the substrates being transparent;

electrodes positioned to establish an electric field in the space between the two substrates;

one or more spacer elements located between the substrates, the spacer elements having been introduced between the substrates during assembly of the device;

an electrooptic material filling at least a portion of the space between the two substrates; and

a polymeric material filling at least a portion of the space between the substrates, the polymeric material comprising a liquid prepolymeric material that was applied to the spacer elements in liquid form and having been polymerized in situ after the spacer elements were in place between the substrates.

2. A method of manufacturing a liquid crystal display device, comprising:

introducing spacer elements between two substrates that face each other, at least one of the substrates being transparent;

applying a liquid prepolymeric material to the exterior surfaces of one or more spacer elements before or after introduction of the spacer elements between the substrates;

positioning electrodes to establish an electric field in the space between the two substrates;

filling at least a portion of the space between the two substrates with an electro-optic material; and

polymerizing the liquid prepolymeric material in situ to form solid polymeric material filling at least a portion of the space between the substrates.

3. The subject matter of claim 1 or 2 wherein the polymeric material is in the vicinity of the spacer elements.

4. The subject matter of claim 1 or 2 wherein the liquid prepolymeric material is applied to the spacer elements prior to their introduction between the substrates.

5. The subject matter of claim 1 or 2 wherein the liquid prepolymeric material is applied to the spacer elements after their introduction between the substrates.

6. The subject matter of claim 3 wherein the liquid prepolymeric material is encased in a collapsible shell surrounding at least some of the spacer elements.

7. The subject matter of claim 1 or 2 wherein the liquid prepolymeric material comprises one or more of the following: monomer, oligomer, inhibitor, adhesion promoter, polymerization initiating or enhancing (PIE) material.

8. The subject matter of claim 1 or 2 wherein the liquid prepolymeric material has a viscosity equal to or less than 2,000,000 centipoise.

9. The subject matter of claim 1 or 2 wherein a polymerization initiating or enhancing (PIE) material is brought into contact with the liquid prepolymeric material.

10. The subject matter of claim 9 wherein the PIE material is brought into contact with the liquid prepolymeric material in one of the following ways: it is mixed with the liquid prepolymeric material applied to the spacer elements; it is carried on or within the spacer elements; it is dissolved or suspended in the electrooptic material.

11. The subject matter of claim 10 wherein the liquid prepolymer material and the PIE material are both encased in a collapsible shell surrounding at least some of the spacer elements.

12. The subject matter of claim 9 wherein the polymerization in-situ comprises initiating polymerization by application of light.

13. The subject matter of claim 1 or 2 wherein the liquid prepolymeric material is a thermoset material, and the polymerizing in situ comprises the application of heat.

14. The subject matter of claim 1 or 2 wherein the polymeric material comprises polymer supports that extend between the two substrates.

15. The subject matter of claim 1 or 2 wherein the polymeric material comprises polymer members that do not extend between the two substrates.

16 The subject matter of claim 1 or 2 wherein additional spacer elements without prepolymeric material are introduced between the substrates.

17. The subject matter of claim 1 or 2 wherein the spacer elements comprise a large number of generally spherical or cylindrical elements.

18. The subject matter of claim 17 wherein the spacer elements comprise glass.

19. The subject matter of claim 18 wherein the glass is etched.

20. The subject matter of claim 17 wherein the spacer elements comprise plastic.

21. The subject matter of claim 20 wherein the plastic is porous.

22. The subject matter of claim 21 wherein the spacer elements comprise high-surface area particles that are nanoporous, mesoporous, or microporous.

23. The subject matter of claim 17 wherein the spacer elements are randomly located in the space between the substrates.

24. The subject matter of claim 1 or 2 wherein the spacer elements comprise a large number of elements generally of smaller diameter than the space between the substrates.

25. The subject matter of claim 24 wherein the spacer elements comprise a large number of elements randomly positioned across the space between the subtrates.

26. The subject matter of claim 24 wherein the spacer elements are generally not in contact with the substrates.

27. The subject matter of claim 24 wherein the spacer elements are in contact with only one substrate.

28. The subject matter of claim 1 or 2 wherein the spacer elements comprise a lattice network structure.

29. The subject matter of claim 28 wherein the lattice network structure is two-dimensional.

30. The subject matter of claim 28 wherein the lattice network structure is three-dimensional.

31. The subject matter of claim 1 or 2 wherein the spacer elements are non-uniform in size and shape.

32. The subject matter of claim 1 or 2 wherein the spacer elements have a rough surface.

33. The subject matter of claim 1 or 2 wherein most of the spacer elements are free to move around in the space between the substrates prior to polymerization.

34. The subject matter of claim 1 or 2 wherein a porous membrane serves as a spacer element.

35. The subject matter of claim 34 wherein the porous membrane is an extensible porous membrane.

36. The subject matter of claim 1 or 2 wherein the spacer elements are located in non-image areas of the substrate.

37. The subject matter of claim 36 wherein the spacer elements are located along the peripheries of the substrates and serve as one or more sealing members sealing the space between the substrates.

38. The subject matter of claim 36 wherein the spacer elements are located at interpixel regions.

39. The subject matter of claim 1 or 2 wherein the prepolymer contracts upon in situ polymerization.

40. The subject matter of claim 14 wherein the majority of the polymer supports are bonded to each of the two substrates.

41. The subject matter of claim 14 wherein the polymer supports are primarily separate members not interconnected with one another.

42. The subject matter of claim 14 wherein one or more interconnecting regions of polymer interconnects a majority of the polymer supports.

43. The subject matter of claim 42 wherein one of the interconnecting regions comprises a layer of polymer adjacent one of the substrates.

44. The subject matter of claim 1 or 2 wherein the spacer elements are dry sprayed on to the substrate before application of the electrooptic material.

45. The subject matter of claim 1 or 2 wherein the spacer elements are wet sprayed on to the substrate.

46. The subject matter of claim 47 wherein a solvent used for wet spraying comprises the prepolymeric material in solution or suspension.

47. The subject matter of claim 9 wherein the PIE material comprises one or both of the following: an initiator and an accelerant of the in situ polymerization process.

48. The subject matter of claim 47 wherein the PIE material is light activated.

49. The subject matter of claim 48 wherein the PIE material comprises a photoinitiator.

50. The subject matter of claim 49 wherein the photoinitiator comprises a plurality of photoinitiators of different spectral sensitivities, so that polymerization may be initiated at different times in different locations.

51. The subject matter of claims 48 or 49 wherein the light is ultraviolet light.

52. The subject matter of claim 47 wherein the PIE material is heat activated.

53. The subject matter of claim 47 wherein the PIE material is self activated after a period of time following assembly of the display.

54. The subject matter of claim 2 wherein the PIE material comprises both a photoinitiator and an accelerant.

55. The subject matter of claim 2 wherein the prepolymeric material is applied to the substrates by at least one of the following processes: pipette, syringe, or printing.

56. The subject matter of claim 55 wherein the printing comprises a silk screen, gravure, flexographic, or lithographic process.

57. The subject matter of claims 1 or 2 wherein the spacer elements are porous structures with a porous matrix, and the prepolymeric material is absorbed into the porous matrix of the porous structures.

58. The subject matter of claim 57 wherein the porous structures are nanoporous ceramic or silica based materials.

59. The subject matter of claim 1 or 2 wherein the spacer elements comprise an open network of polymer spheroids formed so that the electrooptic material fills inter-polymer regions.

60. The subject matter of claim 57 wherein the porosity of the porous structure is selected to yield a desired adhesion of the spacer element to a polymer matrix comprising the in situ polymerized material.

61. The subject matter of claim 1 or 2 wherein the electrooptic material is a liquid crystal material.

62. The subject matter of claim 1 or 2 wherein the electrooptic material is a mesomorphic material.

63. The subject matter of claim 1 or 2 further comprising at least one electrode on at least one substrate to generate the electric field.

64. The subject matter of claim 63 further comprising at least one electrode on the second substrate.

65. The subject matter of claim 1 or 2 wherein the prepolymeric material comprises at least one of the following: acrylic-based adhesive, epoxy-based adhesive, urethane-based adhesive.

66. The subject matter of claim 1 or 2 wherein the prepolymeric material primarily cured by application by one of the following: light, heat, intermixing of a chemical additive.

67. The subject matter of claim 1 or 2 wherein the substrates comprise a flexible polymer material.

68. The subject matter of claim 67 wherein the display is capable of withstanding the flexing text referenced in the detailed description.